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**BEFORE THE
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268-0001**

POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

**SUPPLEMENTAL TESTIMONY OF STEWART W. ELLIOT
ON BEHALF OF RECORDING INDUSTRY ASSOCIATION OF AMERICA**

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Autobiographical Sketch

My name is Stuart W. Elliott. I am a Senior Analyst at Project Performance Corporation (PPC), a consulting firm based in McLean, VA. PPC provides management, information technology, and environmental consulting services to private and public sector clients.

I attended Columbia University, where I received a B.A. in Economics, summa cum laude, in 1985. I also attended the Massachusetts Institute of Technology, where I received a Ph.D. in Economics in 1992. In graduate school, my major fields were labor economics and industrial organization. I received postdoctoral training in experimental psychology at Carnegie Mellon University from 1991 until 1994.

Following my formal education, I was a Research Fellow at Carnegie Mellon University from 1994 until 1999, where I studied the impact of computers on jobs and productivity. During the 1997-98 academic year, I was also a visiting scholar at the Russell Sage Foundation. I joined PPC in 1999, where I have worked primarily on analysis related to postal economics.

1 **1. Purpose and Scope of Testimony**
2

3 The purpose of this testimony is to discuss the large increase in mail
4 processing costs for Special Standard mail that occurred between BY 1998 and
5 FY 1999. The testimony is a supplement to the case in chief of the Recording
6 Industry Association of America (RIAA) in response to the Postal Service's
7 revised Test Year forecasts incorporating FY 1999 data.

8 I argue that the increase in mail processing costs for Special Standard
9 between BY 1998 and FY 1999 is not explained by changes in the characteristics
10 of Special Standard mail and clearly deviates from the historical trend for mail
11 processing costs in this subclass. Furthermore, I argue that the Postal Service
12 has not provided an adequate explanation of the increase. Without an adequate
13 explanation of the cost increase from the Postal Service, FY 1999 mail
14 processing costs should not be used in any way for the determination of Special
15 Standard rates. If the Commission decides to base its recommended rates on
16 the FY 1999 update figures, I argue that in the case of Special Standard the BY
17 1998 mail processing cost figure should be used instead to derive an alternate
18 FY 1999 mail processing cost estimate.

2. Special Standard mail experienced a 44 percent increase in mail processing costs from BY 1998 to FY 1999, while the volume and composition of the subclass were stable.

Special Standard mail experienced a large and unexplained increase in mail processing costs from BY 1998 to FY 1999. Table 1 shows that mail processing costs for this subclass increased by almost 44 percent using the Postal Service's R2000-1 costing method.¹

Table 1: Changes in Special Standard, 1998 to 1999

	BY 1998	FY 1999	Percent Change
Mail Processing Cost USPS Method [1]	\$80,866,000	\$116,164,000	43.6%
Pieces – Total [2]	191,093,000	200,404,000	4.9%
Pieces – Single Piece [3]	155,739,000	149,784,000	- 3.8%
Pieces – Presort [3]	35,354,000	50,620,000	43.2%
Weight in pounds [4]	308,191,000	309,918,000	0.6%
Cubic Feet [5]	28,602,000	28,763,000	0.6%

[1] RIAA/USPS-1.

[2] USPS-T-4 Table 2 and 1999 update in response to POIR 17, Question 1.

[3] Billing Determinants for Special Standard USPS-LR-I-125 and USPS-LR-I-259.

[4] USPS-T-4 Table 3 and 1999 update in response to POIR 17, Question 1.

[5] Cost and Revenue Analysis, USPS-T-11 Exhibit-11C and USPS-LR-I-275.

From BY 1998 to FY 1999, measured total pieces increased only modestly so that the percentage change in mail processing unit cost is nearly as large as the percentage change in total mail processing cost. Using the R2000-1 method, mail processing unit cost increased by 37 percent, from \$0.423 to \$0.580.

Over this period, the proportion of Special Standard presort pieces increased from 18.5 to 25.3 percent, while Special Standard weight and cubic

¹ Costs showed a similar increase using the PRC method. According to USPS/RIAA-1, Cost Segment 3.1 costs using the PRC method increased by 46.3 percent from \$83,658,000 in BY 1998 to \$122,431,000 in FY 1999.

1 feet were stable. These measures suggest that the overall composition of
2 Special Standard mail did not change substantially from BY 1998 to FY 1999. To
3 the extent that change did occur it involved a shift toward higher levels of presort
4 mail, which should be expected to have lower mail processing costs.

5 **3. Although the mail processing cost estimate for Special Standard mail**
6 **has a large coefficient of variation, it is not large enough to explain the**
7 **increase in costs from BY 1998 to FY 1999.**

8
9 Witness Ramage estimates a coefficient of variation of 6.13 percent for
10 the BY 1998 estimate of the mail processing costs for Special Standard. USPS-
11 T-2, Table 1. This coefficient of variation reflects the degree of uncertainty for
12 the cost estimate given the size of the sample used to derive the estimate. Using
13 this coefficient of variation, it is possible to derive a 95 percent confidence
14 interval for mail processing costs for Special Standard that ranges from a low of
15 \$71,150,000 to a high of \$90,582,000.²

16 Given the stable composition of the mail, the FY 1999 cost estimate
17 should lie within the 95 percent confidence interval for the BY 1998 estimate,
18 after making minor adjustments for inflation, increased volume, and increased
19 presort. This is clearly not the case. The discrepancy between the BY 1998 and
20 FY 1999 costs is too large to be caused by sampling variation alone. This
21 suggests that there is either something wrong with the figures for one of the two
22 years or that there was a significant cost change between the two years. In the

² This interval differs slightly from the interval reported by Ramage in USPS-T-2, Table 1, because total Cost Segment 3.1 costs include some adjustments to the mail processing costs reported by Ramage.

1 sections below, I argue that the former is the case and that the problem appears
2 to lie with the FY 1999 cost estimates.

3

4 **4. A historical comparison of Special Standard mail processing costs**
5 **shows that the BY 1998 figure continues the historical trend whereas the**
6 **FY 1999 figure is an anomaly.**

7

8

9 To identify whether it is BY 1998 or FY 1999 that is unusual, I examined
10 mail processing unit costs from FY 1994 to FY 1999 using the USPS method. I
11 adjusted the costs to 1999 dollars using the CPI-W. I also adjusted the costs to
12 reflect the different costing methods used in different years so that the unit costs
13 could be compared across all years as though they had been calculated with the
14 R2000-1 Method. Table 2 on the next page presents the results.

15 With these inflation and costing method adjustments, the unit costs in the
16 last column of Table 2 can be compared from FY 1994 to FY 1999. This
17 comparison shows that unit costs decreased from FY 1994 to FY 1997. The BY
18 1998 value shows no discontinuity when compared to the values from earlier
19 years. In contrast, the FY 1999 value is unusually large. If these cost estimates
20 are to be believed, Special Standard showed three years of improvement in unit
21 mail processing costs that were then erased in a single year. This historical
22 comparison shows that it is clearly the FY 1999 cost figure that is anomalous.

23

Table 2: Mail Processing Costs for Special Standard, USPS Method

Year	Cost (000s)	Pieces (000s)	Unit Cost	CPI-W	Unit Cost in 1999 Dollars	Unit Cost in 1999 Dollars at R2000-1 Level
	[1]	[2]	[3]	[4]	[5]	[6]
R94-1 Method						
FY 1994	\$70,862	190,867	\$0.371	145.6	\$0.416	\$0.555
FY 1995	\$75,152	217,761	\$0.345	149.8	\$0.376	\$0.501
FY 1996	\$64,652	189,793	\$0.341	154.1	\$0.361	\$0.481
R97-1 Method						
BY 1996	\$65,485	189,793	\$0.345	154.1	\$0.365	
FY 1997	\$64,114	202,732	\$0.316	157.6	\$0.327	\$0.431
FY 1998	\$61,440	191,093	\$0.322	159.7	\$0.329	\$0.432
R2000-1 Method						
BY 1998	\$80,866	191,093	\$0.423	159.7	\$0.432	
FY 1999	\$116,164	200,404	\$0.580	163.2	\$0.580	\$0.580

[1] Cost Segments and Components.

[2] Cost and Revenue Analysis.

[3] = [1] / [2]

[4] Consumer Price Index – Urban Wage Earners and Clerical Workers, U.S. Bureau of Labor Statistics.

[5] = [3] * 163.2 / [2]

[6] Unit costs in [5] for 1994-1996 are adjusted to the R97-1 Method using the ratio of (BY 1996 Unit Cost)/(FY 1996 Unit Cost). Unit costs for 1994-1998 are then adjusted from the R97-1 Method to the R2000-1 Method using the ratio of (BY 1998 Unit Cost)/(FY 1998 Unit Cost).

5. The Postal Service has not provided an adequate explanation of the increase in Special Standard mail processing costs from BY 1998 to FY 1999.

In response to an interrogatory from RIAA, the Postal Service has provided the following explanation of the increase in Special Standard mail processing costs:

The costs for Special Standard increased between base year 1998 and fiscal year 1999 primarily due to an increase in Special Standard direct tallies. A

1 change in the endorsement requirements for Special
2 Standard in FY 1999 may have resulted in improved
3 identification.
4
5

6 RIAA/USPS-1. In the Response of the United States Postal Service to Questions
7 Raised at Hearings on August 3, 2000 [Tr. 35/16833], the Postal Service
8 repeated this explanation,³ while adding that "Special Standard observations
9 could vary due to sampling error or underlying cost changes."

10 The Postal Service's explanation of the increase in Special Standard mail
11 processing cost is inadequate. First, as noted above, the likely variation due to
12 sampling error is far too small to explain the large cost increase. Second, a
13 speculation that underlying costs could have increased does not qualify as an
14 explanation for an increase of 44 percent until a substantive reason for such an
15 astounding cost increase is proposed. Third, and most important, the change in
16 the endorsement requirements is unpersuasive as an explanation because it is
17 not consistent with the stability of Special Standard volume estimates. I detail
18 this inconsistency below.

19 Mail processing costs are derived from the In-Office Cost System (IOCS),
20 which provides a sample of employee activities in mail processing. USPS-T-2 at
21 3-4. In order to produce a Special Standard direct tally, the sampled employee
22 must be handling a piece of mail that the IOCS data collector identifies as a piece
23 of Special Standard mail. USPS-T-17 at 13. If Special Standard mail is

³ In the Response of the United States Postal Service to Questions Raised at Hearings on August 3, 2000, the Postal Service also described the nature of the change in the endorsement requirements: "The change was that the Special Standard rate marking had to be in the postage area rather than just anywhere on the piece."

1 sometimes difficult to identify, then it is plausible that an improvement in
2 endorsement requirements could lead to an increase in the number of pieces of
3 mail that the IOCS data collector identifies as Special Standard.

4 However, if it were improved endorsement of Special Standard mail that
5 had caused the increase in measured mail processing costs, then that improved
6 endorsement should have led also to an increase in the measured volume of
7 Special Standard mail. The volume estimates of Special Standard mail are
8 based almost entirely on the Domestic Revenue, Pieces, and Weight (DRPW)
9 system, which takes a sample of "mail exiting the postal system." USPS-T-4 at 4
10 and 10-11. For a piece of mail to be counted as Special Standard in the DRPW
11 system, a DRPW data collector must identify it as a piece of Special Standard. If
12 Special Standard mail is sometimes difficult to identify, then an improvement in
13 endorsement requirements that helped IOCS data collectors correctly identify
14 Special Standard mail should have also helped DRPW data collectors correctly
15 identify Special Standard mail. As Table 1 above shows, the large increase in
16 measured Special Standard mail processing costs between BY1998 and FY
17 1999 was not matched by a large increase in the number of measured pieces of
18 Special Standard mail.

19 Furthermore, data for the IOCS and DRPW system are both entered into
20 the same CODES computer system. A review of the instruction manuals for the
21 IOCS and DRPW data collectors shows that the information provided for
22 identifying Special Standard mail is very similar. For IOCS data collectors, the
23 identifying instructions are as follows:

1
2 j. **Special Standard Mail.** Enter this category for
3 Standard Mail (B) mailable matter marked "Special
4 Standard Mail." Books, printed music, sound
5 recordings, and educational reference charts can be
6 mailed at Special Standard mail rates.
7

8
9 USPS-LR-I-14 at 13-11. Similarly, for DRPW data collectors, the identifying
10 instructions are as follows:

11
12 **2 Special Standard Single Piece** The piece is
13 marked *Special Standard Mail*.
14

15 **3 Special Standard Bulk Presort** The piece is
16 marked *Presorted Special Standard Mail*.
17

18
19 USPS-LR-I-37 at 3-243. Thus it appears that there is no basis for concluding
20 that IOCS and DRPW data collectors would have behaved any differently in
21 relation to identifying Special Standard mail. Indeed, based on these two sets of
22 instructions, it appears that the IOCS data collectors had more informative
23 instructions and so should have shown less improvement from an endorsement
24 change than did the DRPW data collectors.

25 Until the Postal Service has a chance to investigate this matter more fully,
26 it is clear that the most accurate explanation is the one provided by Witness
27 Patelunas on cross-examination: "I haven't looked at that. I don't know." Tr.
28 35/16833.

1 **6. The Commission should not use the FY 1999 mail processing cost**
2 **estimates for Special Standard mail in its rate recommendations.**
3
4

5 The Postal Service has not provided an adequate explanation of the large
6 increase in Special Standard mail processing costs from BY 1998 to FY 1999.
7 Until an adequate explanation is provided, the FY 1999 figure should not be used
8 in determining Special Standard rates.

9 If the Commission decides to base its recommended rates on the FY 1999
10 update figures, the BY 1998 mail processing cost figures should be used instead
11 to derive an alternate FY 1999 estimate for Special Standard. Table 2 provides a
12 unit cost estimate for BY 1998 of \$0.432 in 1999 dollars using the R2000-1
13 method. When this unit cost is multiplied by the FY 1999 estimate of
14 200,404,000 pieces, the result is an estimated FY 1999 Special Standard mail
15 processing cost of \$86,575,000. The Commission should use this FY 1999 cost
16 estimate for Special Standard mail if it decides to base its recommended rates on
17 the FY 1999 update figures.

CERTIFICATION

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with Section 12 of the rules of practice.

Ian Volner AW
Ian Volner